

CLAIMS

1. An audio/video reproducing apparatus connectable to a communications network for selectively reproducing items of audio/video material from a recording medium in response to a request received via said communications  
5 network.

2. An audio/video reproducing apparatus as claimed in Claim 1, comprising

- a control processor which is arranged in use to receive data representing said  
10 request for said audio/video material item via said communications network, and
- a reproducing processor coupled to the control processor and arranged in response to signals identifying said audio/video material items from said control processor to reproduce said audio/video material items, which are communicated via said communications network.

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3. An audio/video reproducing apparatus as claimed in Claim 1 or 2,

- a first network interface connectable to a first communications network for receiving said data representing said requests for said audio/video material items, and
- a second network interface connectable to a second communications network  
20 for communicating said items of audio/video material.

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4. An audio/video reproducing apparatus as claimed in any preceding Claim, wherein said first network interface is arranged to operate in accordance with a data communications network standard such as Ethernet, RS 322 or RS 422 or the like.

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5. An audio/video reproducing apparatus as claimed in any of Claims 3 or 4, wherein said second network interface is arranged to operate in accordance with the Serial Digital Interface (SDI) or the Serial Digital Transport Interface (SDTI).

6. An audio/video reproducing apparatus as claimed in any preceding Claim, wherein said data representing requests for audio/video material items includes meta data indicative of the audio/video material items.

5           7. An audio/video reproducing apparatus as claimed in any preceding Claim, wherein said meta data is at least one of UMID, tape ID and time codes, and a Unique Material Reference Number, identifying the material items.

8. An audio/video reproducing apparatus as claimed in any of Claims 2 to  
10 7, wherein said reproducing apparatus comprises a plurality of audio/video recording/reproducing apparatus each of which is coupled to said control processor via a local data bus.

9. An audio/video reproducing apparatus as claimed in Claim 8, wherein  
15 said local bus includes a control communications channel for communicating control data to and/or from said control processor, and video data communications channel for communicating said items of audio/video material from said plurality of audio/video recording/reproducing apparatus to said communications network.

20           10. An audio/video reproducing apparatus as claimed in any preceding Claim, comprising  
- a display device which is arranged in operation to display images representative of said audio/video material items present on said recording medium.

25           11. An audio/video reproducing apparatus as claimed in Claim 10, wherein said display device is a touch screen coupled to said control processor, and arranged in use to receive touch commands from a user for selecting said items of audio/video material.

30           12. An audio/video reproducing apparatus as claimed in any of Claims 2 to 11, wherein said control processor is arranged to generate data representing a material

identifier for each of said audio/video material items, from data recorded with said audio/video material items on said recording medium.

13. An audio/video reproducing apparatus as claimed in Claim 12, wherein  
5 said material identifier is a UMID or the like.

14. A method of reproducing items of audio/video material from a recording medium, comprising the steps of

- communicating an identification of a selected item of audio/video material via  
10 a communications network,
- receiving said identification at an audio/video reproducing apparatus in which said recording medium is loaded, and
- selectively reproducing said item of audio/video material from said recording medium in accordance with said identification.

15 15. A video processing apparatus for processing video signals representing images comprising

- an activity detector which is arranged in operation to receive said video signals and to generate an activity signal indicative of an amount of activity within the  
20 images represented by the video signal, and
- an image generator coupled to the activity detector which is arranged in operation to receive said video signal and said activity signal and to generate sample images at temporal positions within said video signal, which temporal positions are determined from said activity signal.

25 16. A video processing apparatus as claimed in Claim 15, wherein said activity signal is representative of a relative amount of activity within the images represented by said video signal and said image detector is arranged in operation to produce more of said sample images during periods of greater activity indicated by  
30 said activity signal.

17. A video processing apparatus as claimed in Claims 15 or 16, wherein said sample images are represented by a substantially reduced amount of data in comparison to said images represented by said video signal.

5 18. A video processing apparatus as claimed in any of Claims 15 to 17, comprising

- a reproduction processor which is arranged in operation to receive a recording medium on which said video signals are recorded and to reproduce said video signals from said recording medium.

10 19. A video processing apparatus as claimed in Claim 18, wherein said image generator is arranged in operation to generate, for each of said sample images a material identification representative of a location on said recording medium where the video signal corresponding to said sample images are recorded.

15 20. A video processing apparatus as claimed in any of Claims 15 to 19, comprising

- a display device for displaying said sample images.

20 21. A video processing apparatus as claimed in Claim 20, wherein said display device is arranged to display said sample images at locations on said display device which are representative of the location on said recording medium at which said sample images are recorded.

25 22. A video processing apparatus as claimed in any of Claims 15 to 21, comprising

- a communications processor which is arranged in operation to communicate said sample images.

30 23. A video processing apparatus as claimed in any of Claims 15 to 22, wherein said activity detector generates said activity signal by forming a histogram of

colour components of said video image and determining a rate of change of said colour components.

24. A video processing apparatus as claimed in any of Claims 15 to 23,  
5 wherein said activity detector generates said activity signal from motion vectors of image components of said video image signal.

25. An editing system having a database connected to a communications  
channel and a video processor as claimed in any of Claims 22, 23 or 24, connected to  
10 said communications channel via the communications processor, said communications processor being arranged in operation to communicate said sample images to said database, in which said sample images are stored.

26. An audio processing apparatus for processing audio signals  
15 representative of sound, said audio processing apparatus comprising

- a speech analysis processor which is arranged in operation to generate speech data identifying speech detected within said audio signals,
- an activity processor coupled to said speech analysis processor and arranged  
in operation to generate an activity signal in response to said speech data, and
- 20 - a content information generator, coupled to said activity processor and said speech analysis processor and arranged in operation to generate data representing the content of said speech at temporal positions within said audio signal determined by said activity signal.

27. An audio processing apparatus as claimed in Claim 26, wherein said  
25 activity signal is indicative of the start of a speech sentence.

28. An audio processing apparatus as claimed in Claims 26 or 27,  
comprising  
30 - a reproduction processor which is arranged in operation to receive a recording medium on which said audio signals are recorded and to reproduce said audio signals from said recording medium.

29. An audio processing apparatus as claimed in any of Claims 26, 27 or 28, wherein said content information generator is arranged in operation to generate, for each of said sample images a material identification representative of a location on said recording medium where the audio signals corresponding to said content data are recorded.

30. An audio processing apparatus as claimed in any of Claims 26 to 29, wherein said content data is representative of text corresponding to the content of the speech.

31. An audio processing apparatus as claimed in Claim 30, comprising  
- a display device for displaying said text.

32. An audio processing apparatus as claimed in Claim 31, wherein said display device is arranged to display said text with respect a location on said display device which is representative of a location on said recording medium at which said text is recorded.

33. An audio processing apparatus as claimed in any of Claims 26 to 32, comprising  
- a communications processor which is arranged in operation to communicate said content data.

34. An editing system having a database connected to a communications channel and an audio processor as claimed in Claim 33, connected to said communications channel via the communications processor, said communications processor being arranged in operation to communicate said content data to said database, in which said sample images are stored.

35. An audio/video processing apparatus comprising  
- a video processing apparatus as claimed in any of Claims 15 to 24, and

- an audio processing apparatus as claimed in any of Claims 26 to 33.

36. A method of processing video signals comprising the steps of

- generating an activity signal indicative of an amount of activity within the  
5 images represented by the video signal, and
- generating sample images at temporal positions within said video signal,  
which temporal positions are determined from said activity signal.

37. A method of processing audio signals representative of sound, said  
10 method comprising the steps of

- generating speech data identifying speech detected within said audio signals,
- generating an activity signal in response to said speech data, and
- generating data representing the content of said speech at temporal positions  
15 within said audio signal determined by said activity signal.

38. A system for editing audio/video productions comprising

- an ingestion processor having means for receiving a recording medium and  
being arranged in use to reproduce audio/video material items from said recording  
medium,
- 20 - a data base operable to receive and to store meta data describing the contents  
of said audio/video material items on said recording medium, and
- an editing processor coupled to said ingestion processor and said data base,  
said editing processor having a graphical user interface for displaying a representation  
of said meta data stored in said data base and for selecting said audio/video material  
25 items from said displayed representation of said meta data, said editing processor  
being arranged to combine user selected items of audio/video material, which are  
selectively reproduced by said ingestion processor in response to meta data  
corresponding to said selected items of audio/video material being communicated to  
said ingestion processor by said editing processor.

39. A system as claimed in Claim 38, wherein said editing processor is coupled to said data base and said audio/video reproducing apparatus via a data communications network.

5 40. A system as claimed in Claim 39, wherein said data communications network comprises

- a first communications channel coupled to said editing station, said data base and said ingestion processor for communicating said meta data, and

- a second communications channel coupled to said editing station, said data  
10 base and said ingestion processor for communicating said items of audio/video material.

41. A system as claimed in Claim 40, wherein said first network interface is arranged to operate in accordance with a data communications network standard such  
15 as Ethernet, RS 322 or RS 422 or the like.

42. A system as claimed in Claims 40 or 41, wherein said second network interface is arranged to operates in accordance with the Serial Digital Interface (SDI) or the Serial Digital Transport Interface (SDTI).

20 43. A system as claimed in any of Claims 38 to 42, wherein said meta data includes at least one of UMID, tape ID and time codes, and a Unique Material Reference Number, identifying the material items.

25 44. A system as claimed in any of Claims 38 to 43, wherein said meta data includes sample images representing the content of the audio/video material items at sample temporal positions within said audio/video material items.

30 45. A system as claimed in any of Claims 38 to 44, wherein said recording medium includes said meta data describing the content of the audio/video material items recorded on to said recording medium, and said ingestion processor is arranged in operation to reproduce said meta data and to communicate said meta data via said



network to said data base, said data base operating to receive and to store said meta data.

46. A method of generating an audio/video production by selecting and  
5 combining items of meta data, said method comprising the steps of

- loading a recording medium on which items of audio/video material are recorded into an ingestion processor;
- reviewing meta data describing the content of the audio/video material items on said recording medium; and consequent upon said review
- 10 - selectively retrieving items of audio/video material from said recording medium to form said audio/video production.

47. A method as claimed in Claim 46, comprising the step of  
- loading meta data describing the content of the audio/video material items  
15 into a data base; the step of reviewing the meta data comprising the step of  
- interrogating said data base.

48. A method as claimed in Claim 47, wherein said meta data is present on said recording medium with said items of audio/video material, and said method  
20 further comprises the steps of  
- ingesting said meta data using said ingestion processor,  
- communicating said meta data to said data base, and  
- storing said meta data in said data base.

25 49. A computer program providing computer executable instructions, which when loaded onto a data processor configures the data processor to operate as an audio/video reproducing apparatus according to any of Claims 1 to 13, or 35, or a video processing apparatus according to any of Claims 15 to 24, or an audio processing apparatus according to any of Claims 26 to 33, or an editing system  
30 according to any of Claims 25, 34 or 38 to 45.

50. A computer program providing computer executable instructions, which when loaded on to a data processor causes the data processor to perform the method according to any of Claims 14, 36, 37 or Claims 46 to 48.

5 51. A computer program product having a computer readable medium recorded thereon information signals representative of the computer program claimed in any of Claims 49 or 50.

10 52. A signal representing audio and/or video material produced by the an audio/video reproducing apparatus according to any of Claims 1 to 13, or 35, or the sample images produced by the video processing apparatus according to any of Claims 15 to 24, or the data representing the content of the speech produced by the audio processing apparatus according to any of Claims 26 to 33, or an audio/video production produced by the editing system according to any of Claims 25, 34 or 38 to 15 45.

20 53. A data carrier on which is recorded data representing audio and/or video material produced by the an audio/video reproducing apparatus according to any of Claims 1 to 13, or 35, or the sample images produced by the video processing apparatus according to any of Claims 15 to 24, or the data representing the content of the speech produced by the audio processing apparatus according to any of Claims 26 to 33, or an audio/video production produced by the editing system according to any of Claims 25, 34 or 38 to 45.

25 54. A system for editing audio/video material items as herein before described with reference to the accompanying drawings.

55. A method of reproducing items of audio/video material as herein before described with reference to the accompanying drawings.

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56. An audio/video reproducing apparatus as herein before described with reference to the accompanying drawings.

57. An audio or a video processing apparatus as herein before described with reference to the accompanying drawings.

5 58. A method of processing items of audio/video material as herein before described with reference to the accompanying drawings.